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Effects of information on parental knowledge of febrile convulsions

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The purpose of this study was to study the effects of giving information to parents with febrile convulsive children. All parents of children with febrile convulsions who are seen at Worcester Royal Infirmary are given information. Fifty parents of children who had had a first febrile convulsion during May 1996 to December 1996 were interviewed by telephone from July to September 1997. The same questions were asked of 50 parents of children who came to a community health clinic and who had not had febrile convulsions. The design used open questions and covered medical history, general child health knowledge and knowledge of febrile convulsion. The answers were compared using a chi-squared test (significance level $P < 0.05$). Possible confounding factors were tested by a correlation test. No difference was found between the two groups in family structure, housing, and general child health knowledge. Information about febrile convulsions was retained by informed parents. Both groups thought the given information was useful and should be written in the child health record book. Information about febrile convulsions was remembered by parents.

Key words: febrile convulsion; patient education.

INTRODUCTION

Febrile convulsions are seen frequently in paediatric practice. A convulsing child is a frightening sight to a parent who may believe that the child is about to die[1]. There is a remarkable contrast between the shock-like situation of the parents and the cool evaluation of doctors who consider febrile convulsions a common benign phenomenon with a good prognosis. It has been suggested that the best medicine for febrile convulsions is to sit with the family and talk[2]. Few studies have focused on the effect of giving information to parents with febrile convulsive children.

The purpose of this study was to study the effects of giving information to parents with febrile convulsive children. Is the information given to parents retained?

MATERIALS AND METHODS

Febrile convulsion was defined according to the Consensus Development Conference[3] as seizures that occur in young children between the ages of 3 months and 5 years, associated with fever but not with neurologic illness or a defined cause.

All parents of children with febrile convulsions who are seen at Worcester Royal Infirmary are given information by the nurse and doctor and an information sheet discussing febrile convulsions, the recurrence of febrile convulsions, the risks of febrile convulsions and the recommended first aid measures for seizures and fever. Fifty parents of children who had had a first febrile convulsion between May 1996 and December 1996 were interviewed by telephone from July to September 1997. The same questions were asked of 50 parents of children who came to a community health clinic and who had not had febrile convulsions.

The design used open questions and covered demographic characteristics, experience of seizures, general child health knowledge specified by describing meningitis and the child health record book and knowledge of febrile convulsion, i.e. the recognition, prevention and management of febrile convulsions. The answers were compared using a chi-squared test (significance level $P < 0.05$). Possible confounding factors were tested by a correlation test.

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Table 1: Parental characteristics of patients and parents.

1A. Socio-economic	FC $n = 50$	Cont $n = 50$	Chi test P
Single parent	6	4	0.297
Council housing	9	7	0.414
1B. Family history of convulsions			
Family epilepsy	16	4	5.32×10^{-24} [a]
Family FC	16	8	0.002[a]
Family development delay	5	4	0.6
Friend with FC	13	4	0.05[a]
1C. Knowledge of signs and symptoms of meningitis			
Fever	27	28	0.77
Headache	19	18	0.77
Unwell	16	15	0.53
Drowsy	8	8	1
Avoid light	32	26	0.09
Stiff neck	28	18	0.003[a]
Rash	43	40	0.29
Off feeding	3	2	0.47
Irritable	4	0	0.002[a]
1D. Knowledge of content of child health record book			
Growth	28	40	$2.22 \times 10^{-0.5}$ [a]
Vaccinations	23	22	0.78
Development	19	30	0.001[a]

[a] Significance level $P < 0.05$. FC: febrile convulsion.

RESULTS

Parental characteristics

Table 1 summarizes the data of the parents in the experimental and control groups. No difference was found between the two groups in family structure, housing, and general child health knowledge. The parents who had children with febrile convulsions knew more about meningitis. The control group knew more of the content of their child health record book. However, there seems to be no association between general child health knowledge and knowledge of febrile convulsions (Table 3). The prevalence of development delay was the same in both groups. A family history of febrile convulsions and epilepsy was more common in the children with febrile convulsion. But there seems to be no correlation between knowledge of febrile convulsions and having a family history of febrile convulsions (Table 3).

A friend with a child with febrile convulsion was more common in the febrile convulsion group. Parents are more likely to be aware of other children with febrile convulsions, if their own child has experienced this. Parents talk about their children's illnesses.

Parental knowledge of febrile convulsions

Information about febrile convulsions was given and remembered. The knowledge of febrile convulsions, i.e. what they are, how to prevent and manage them, was better in the informed parents with febrile convulsive children (Table 2).

Table 2: Knowledge of febrile convulsions.

2A. What is a febrile convulsion?	FC	Control	Chi-test P
Fever	23	14	2.00×10^{-3} [a]
Lasts minutes	9	0	6.41×10^{-16} [a]
Stiff	10	0	9.78×10^{-20} [a]
Jerky	38	14	4.05×10^{-14} [a]
Blue lips	13	2	2.05×10^{-15} [a]
Stare/rolling eyes	29	8	5.45×10^{-16} [a]
Remote	19	2	1.33×10^{-34} [a]
Floppy	3	2	4.70×10^{-1}
Frothing	9	0	6.46×10^{-16} [a]
Drowsy afterwards	5	2	3.00×10^{-2} [a]
2B. How do you prevent a febrile convulsion?			
Light clothes	29	18	1.00×10^{-3} [a]
Paracetamol	31	26	0.16
Sponge	41	24	7.40×10^{-5} [a]
Fan	12	0	1.10×10^{-28} [a]
Junifen	5	0	5.33×10^{-5} [a]
2C. How do you manage a febrile convulsion?			
Lie down safely	15	18	0.38
Loosen clothes	16	0	7.32×10^{-52} [a]
Clear mouth	0	8	2.00×10^{-3} [a]
Cool	28	4	6.51×10^{-36} [a]
Diazepam	3	0	4.00×10^{-2} [a]
Go to GP	46	50	2.00×10^{-3} [a]
Wait	6	0	4.4×10^{-7} [a]
2D. Why would you go to your GP?			
To be examined	28	24	0.26
If long fit	14	0	2.16×10^{-39} [a]
Panic	3	4	0.6
Possible meningitis	2	2	1
Told to do so	2	0	0.002 [a]
To control temperature	2	0	0.002 [a]
Do not know what to do	0	18	5.48×10^{-7} [a]

[a] Significance level $P < 0.05$.

Table 3: Correlation of confounding factors and knowledge of febrile convulsions.

	Corr. factor
Family history of febrile convulsions	0.018
General child health knowledge	0.052

Table 4: Is, or was, the information of FC helpful? Which information?

Info helpful	45	46	0.46
What it is	31	22	0.01[a]
What to do	16	30	5.31×10^{-5}[a]
Temperature information	4	2	0.15
General information	6	14	0.02[a]
Should FC information be in child health record?			
YES!	45	42	0.247

[a] Significance level $P < 0.05$.

The reason for seeking medical advice varied and was not the reason given by medical staff.

Both groups thought the given information was useful and should be written in the child health record book (Table 4).

The parents with febrile convulsive children thought the explanation of what a febrile convulsion is most helpful. The parents who had never experienced a febrile convulsion with their child were most interested in the management of febrile convulsions. Generally, parents wanted to know more first aid. Although the child health record book could be a source of information, the parents do not read it very well (Table 1D). Other sources of information were suggested, such as the health visitor and posters in general practice waiting rooms.

DISCUSSION

The general level of knowledge of febrile convulsions among parents of young children is low. Giving information does improve parental knowledge. And knowledge empowers parents. Well-informed parents manage febrile convulsions better when they occur[4]. Better understanding may help the parent cope better with the frightening experience of watching their child convulse. Knowledge may reduce anxiety.

Most parents wanted to be better informed about febrile convulsions before they occurred. The child health record book could be a source of information, however this is not well read by parents. Parents suggested the health visitor could inform them, or posters in the waiting room of their general practitioner.

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